


Digital Media in Primary Schools: Literacy or Technology? Analyzing Government and Media Discourses

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Abstract

This article examines the political and the media discourses concerning the Portuguese governmental program responsible for delivering a laptop named “Magalhães” to all primary school children. The analysis is based on the official documents related to the launch and development of the initiative as well as the press coverage of this topic. The main purpose is to recognize the dominant public discourses and to find out what the media select for the debate in the public sphere. This analysis was done with a particular focus on the critical media literacy framework. The results reveal that the press highlighted the negative aspects of that program and that this framing could have a strong impact on how it was accepted and understood by the public opinion. Analysis also reveals that the governmental initiative was predominantly driven by technological objectives, in particular the access to technology, rather than media literacy objectives.

Keywords

digital media, ICT governmental program, educational public policy, basic education, media literacy

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Introduction

In 2008 the Portuguese government launched the “e.escolinha” (e.little school) program, which gave the opportunity to all primary schoolchildren to obtain for free or acquire at an extremely low price a laptop named “Magalhães” (a tribute to the 16th century Portuguese navigator Fernão Magalhães, or Magellan in English). This initiative has had great visibility in Portuguese society; the prime minister made this a flagship measure for his government and it was covered extensively by the media.

Considering the expected great social, cultural, economic, and educational importance of this governmental measure, we designed a research project to analyze the program’s implementation, development, and impact. The research presented in this article is part of a three years project named “Navigating with ‘Magalhães’: Study on the Impact of Digital Media in Schoolchildren” that is being carried out at the University of Minho, Portugal, with the financial support of the Portuguese Foundation for Science and Technology and the European Regional Development Fund (ERDF).

This project focuses primarily on the program’s policies and children’s media uses. The study intends to understand the current practices in the use of digital media in school and outside school as well as the perspectives of children, teachers, and parents about the potential gains and challenges that digital media introduces. It also aims to examine whether policymakers and teachers are aware of the fundamental need for media literacy.

In this article we intend to clarify how a standard “Information Society” policy is enunciated and publicly promoted by the government and the media, more specifically the press. The difference between public discourse and covert political objectives is at the centre of our analysis. Particular attention will therefore be given to governmental documents and speeches versus the media coverage of the “e.escolinha” program. With this analysis we aim to understand if this governmental program considers and integrates media literacy objectives or if it is driven only by technological goals, that is, if it goes beyond access or if it focuses only on the integration of information and communications technology (ICT) in schools without promoting critical awareness and without empowering participation and citizenship. It is also our aim to study the selections made by the media regarding which materials they choose to bring into the public sphere from this governmental initiative and which materials they choose to ignore.

Media Literacy Versus Technology-Centered Approach

This study is based on a media literacy framework, which means that digital media and technologies are understood as social and cultural phenomena

rather than simply technical devices. In a technology-centered approach, the process of use tends to be boiled down to the issue of access. The ability to access is undoubtedly important, but media literacy or media education should not be limited to teaching through the media and should not be confined to the access to technologies. It should also entail a “critical framing” (Buckingham, 2007), that is, promote competences “to evaluate and use information critically if they are to transform it into knowledge” (Buckingham, 2007, p. 152). This means much more than the instrumental or functional use of the media or technologies, as Buckingham pointed out, “this means asking questions about the sources of that information, the interests of its producers, and the ways in which it represents the world, and understanding how technological developments and possibilities are related to broader social and economic forces” (2007, p. 152). In the same line of thought, Neil Selwyn, in his vast work on technology and education, argues that “our primary focus should not be on the actual technology devices, tools and applications per se, but the practices and activities that surround them, the meanings that people attach to them, and the social relations and structures that these technologies are linked to” (Selwyn, 2011, p. 2).

Likewise, the “Youth Media Education” Recommendations addressed to UNESCO by the participants in a meeting in Seville (YME-recomendaciones-Sevilla-212, 2002) highlight:

Media education is about teaching and learning with and ABOUT media, rather than THROUGH media:

- It involves critical analysis AND creative production;
- It can and should take place in formal and informal settings;
- It should promote the sense of community and social responsibility, as well as individual self-fulfillment.

At the same time, some European institutions such as the Council of Europe and the European Commission have also underlined the importance of promoting a critical relation between people and media (old and new), defining media literacy as “the ability to access the media, to understand and critically evaluate different aspects of the media and media content and to create communications in a variety of contexts” (European Commission, Recommendation 2009/625/EC, p. L227/10).

These European documents emphasize some dimensions that do not simply intend to reduce the use of media or technology to learning resources. In Portugal, as in other European countries, it has been observed that policies concerning digital media are mainly focused on the access rather than on the promotion of a critical use of these media (Pinto et al., 2011). As Junge and Hadjivassiliou (2007) mentioned, the early measures of promoting digital

literacy that EU member states have implemented reflected a functional understanding of digital literacy, “which simply refers to a person’s ability to use hardware and software effectively” (p. 1). Based on the myth of the existence of a generation with a natural ability for technology (Buckingham, 2007), some policies are developed to provide children the access to computers and the Internet by assuming they will use it to improve their capacity to learn.

In Mansell’s (2010) point of view, “the idea that the spread of ICTs is often associated with new forms of disadvantage and inequality in society and that the information society vision is not likely to be universally beneficial to all is one that is present in some of the social science literature” (p. 27). Mansell concludes that this kind of insight is “rarely influential when policy makers launch and implement ICT-related development strategies” (p. 27). This is why Mansell considers that “new forms of inequalities that are associated with the spread of ICTs require policy responses across a number of different fronts” (p. 26). These inequalities would be mainly related to the capacity of pupils, and their teachers, to take advantage of the opportunities these tools bring to them: the more their motivation and cultural capital is spurred, the more they can improve the way they learn.

A media literacy approach tries to stress the relevance of skills, both technical and critical, and proposes a comprehension of the phenomena of technologies through a holistic vision of media, involving both old and new media (Zacchetti & Vardakas, 2008). Therefore, media literacy is much more than granting access and goes beyond *functional literacy*; it is also related to *critical literacy*, which “would involve the ability to understand and make informed judgments about the place of technology within society and culture” (Buckingham, 2007, p. 154). In this sense, it is our understanding that media literacy is a question of citizenship, human rights, expression, and participation (Pinto et al., 2011).

In recent years, media literacy has been discussed in different contexts, often from distinctive angles and perspectives. In our opinion, rather than exclude perspectives, it is important to be aware of the conceptual ideas behind the media, the digital world, information, computer literacy, and other related issues, which need to be problematized and discussed so that public policies do not have a narrow scope of action—limited to the spreading of technology—and strategies may be promoted to empower people, namely children, to use media critically and participate in society through these digital media. Because media education, in the way we conceptualize and understand it, is defined as “both a critical and a creative enterprise” (Buckingham, 2007).

Contextualizing the “e.escolinha” Initiative in the Portuguese Educational System

The Portuguese educational system consists of 12 years of schooling. The last 3 years, known as secondary school, were not mandatory till 2009/2010. Basic education lasts for 9 years, from the ages of 6 to 15, and is organized into three sequential cycles (preschool education intended for 3- to 6-year-old children is optional and is often given in public or private kindergartens).

In the first cycle (6-10 years old), education is comprehensive and aims to develop basic skills in Portuguese language, mathematics, environmental studies, and arts. In the last years, schools promote curriculum enrichment activities, including options such as learning English, receiving study support, playing sports, music, and other artistic expressions.

In the second and third cycles (10-15 years old), the teaching is organized by disciplines or subjects and by interdisciplinary areas of study. In the first cycle students have only one teacher, and possibly a specialist in certain areas, while in the second and third cycles students have several teachers.

In 2009/2010, there were 1,256,462 students attending basic education (85.2% of them in the public system). According to official statistics from the Ministry of Education¹ (see Table 1), in the first cycle—the main target of the “Magalhães Initiative”—there were 479,519 children. Table 1 presents the distribution of students by the other levels.

As in most Western countries, over the last decade Portuguese governments have deepened the so-called “Information Society” policies, mostly to promote the intensive use of ICT. The government, responsible for the development of the “Magalhães” initiative, has nevertheless defended its delivery to every primary school child based on its pedagogical potential. The origin

Table 1. Number of students in 2009/2010, according to official statistics from the Portuguese Ministry of Education.

School levels	Number of students	
	2009/2010	%
Pre-school	274,387	13.6
Basic education:		
1st cycle	479,519	38.2
2nd cycle	273,248	21.7
3rd cycle	503,695	40.1
Secondary school	483,982	24.0
Total	2,014,831	100

of this measure is different from the One Laptop per Child (OLPC) project founded in 2005 by Nicholas Negroponte, former director of the Massachusetts Institute of Technology, but in some ways they share a common mission—to provide a laptop to every school-age child in order to empower children to learn (“One Laptop per Child”, 2008). The OLPC program clearly sets a different objective from the Portuguese program when it states that it seeks “to provide a means for learning, self-expression, and exploration to the nearly two billion children of the developing world with little or no access to education” (“One Laptop per Child”, 2008). But on the other hand, both projects believe that giving children a laptop means giving them “a window to the outside world, access to vast amounts of information, a way to connect with each other, and a springboard into their future” (“One Laptop per Child”, 2008).

The Technological Plan for Education (TPE) was approved by the Portuguese Council of Ministers on August 16, 2007 and consists of three lines of action: Technology, Content, and Training. The most visible programs are the following four: “e.escola” (e.school), “e.professor” (e.teacher), “e.opportunidades” (e.opportunities) and “e.escolinha” (e.little school). According to the resolution of the Portuguese Council of Ministers (Resolution of the Portuguese Council of Ministers, 2007), the TPE is a strategic tool for “the technological modernization of schools.”

As mentioned above, the program “e.escolinha” gave all primary school-children the opportunity to acquire a laptop. In this sense, this initiative gave equal opportunities to all children to have access to a computer, contributing to minimize the possible gap between students who have access to a personal laptop and those who do not. This does not necessarily mean, however, that it will bridge social, cultural, and educational gaps and this is also one of the reasons why it is important that these programs are accompanied by media literacy goals that go beyond access and help children to use these tools and support them in analyzing, understanding, evaluating and producing information and different contents.

Launched in 2008, the e.escolinha program has been widely discussed in Portuguese society because the government presented this policy as a flagship measure of the Technological Plan for Education that “intends to place Portugal among the five most advanced European countries in terms of school’s technological modernization by the year 2010” (Resolution of the Portuguese Council of Ministers, 2007, p. 6564).

“Magalhães” is a portable computer specially designed for children from 6 to 11 years of age, highly resistant to shock and water, that comes to the fore within the framework of the “e.escolinha” initiative. This is the Classmate PC developed by Intel and adapted to different contexts and countries.

The computer, the components of which are assembled in Portugal, intends to create the conditions for young children to navigate in the ocean of knowledge: “just like the voyager Ferdinand Magellan this Magellan will bring people of the world together by expanding the concept of inclusion to citizens of all countries” (“Magellan, an Intel-Powered Classmate PC in Portugal”, 2009).

The role of Intel was crucial, but there were other commercial companies including Microsoft and the Portuguese JP Sá Couto (where the computers were produced) which were decisive for the implementation of this project. They were so engaged that, for instance, Microsoft developed training for teachers and support for promoting the use of the computers in the schools. The government presented “e.escolinha,” in the beginning as a great solution for the national economy and the “Magalhães” was seen as a commercial opportunity to export technology (as was the case when computers were sold to other countries, such as Venezuela). In the presentation of this policy and in several public acts, it was clear that the decision makers expected to create several job posts, to increase export profits and to bring a new energy to the economy based on the information society.

However, the project has been subject to considerable criticism from different social actors—opposition parties, teachers, parents, and the media—who have raised questions related to the beliefs and ideals underpinning it. Actually, the discourses are ambivalent and even contradictory. On the one hand, there are those who attribute enormous power to technology and the media; on the other hand, there are those who see them as harmful, enemies of “true” literacy, as also noted by Buckingham (2003) and Gonnet (2001).

Marx & Smith (1996) state that “a sense of technology’s power as a crucial agent of change has a prominent place in the culture of modernity” (p. ix). In fact, many of these programs proclaim technology as the determining factor for social change as if providing technology will result in development or, in this particular case, as if it will necessarily lead to better learning and better education.

Manuel Pinto in 2002, 6 years before the launch of the “e.escolinha” program, noticed the technological drift of media education; considering that there is a confusion between media education and the use of media in education, he advocates that it is not enough to deliver computers to children and that many times the technology is seen as an end when it is simply a means to an end (Pinto, 2002).

As Buckingham (2007) points out, the debate about technology and (digital) media in education has been extremely polarized. Therefore, a key point is to construct a more balanced perspective that does not look at technology in an isolated way but takes into account the social and cultural contexts of media

uses and the diversity of experiences and consumption. We understand technology from a holistic and ecological perspective, considering media education (and media literacy) a fundamental (and even an alternative) approach to technology in schools in order to promote a positive and critical media use.

Method

As mentioned before, this paper presents the results of the first task of a broader project about the impact of digital media on primary schoolchildren. Figure 1 presents the main steps of the research project. In this paper the attention is placed on the first step marked with a dashed circle. This task consisted of analyzing the press coverage of the government program from its launch in 2008 until June 2010.

This analysis is focused on an online survey of the news published by four Portuguese daily newspapers—*Público*, *Diário de Notícias*, *Jornal de Notícias*, and *Correio da Manhã*—from July 2008 until June 2010. The survey was done by using the keywords “e.escolinha” and “Magalhães”.

The analysis of the press coverage is based on three types of data:

- news provided by an online search at the four newspapers’ websites;
- front pages of the newspapers’ printed editions;
- opinion articles and editorials also provided by that online search.

Figure 2 schematically presents the steps followed in this analysis.

The examination of the press coverage on this topic will be compared and contrasted with the qualitative analysis of some documents produced by official authorities and gathered during the documental research. The main purpose is to recognize the dominant public discourse and to find out what the media select for the debate in the public sphere. The analysis was conducted with a particular focus on the media education and media literacy framework.

Results and Discussion

The first question that might be raised concerns how the Portuguese government has presented the project “e.escolinha” to society. What are its arguments and objectives? The project has undergone an extensive marketing campaign, involving leading members of the government, mainly the prime minister, the computer manufacturer, Intel Corporation, and telecommunications companies. A total of 219 documents were gathered in the documental research and considered for analysis: 180 print documents and 39 promotional videos. These data are being organized and analyzed through the

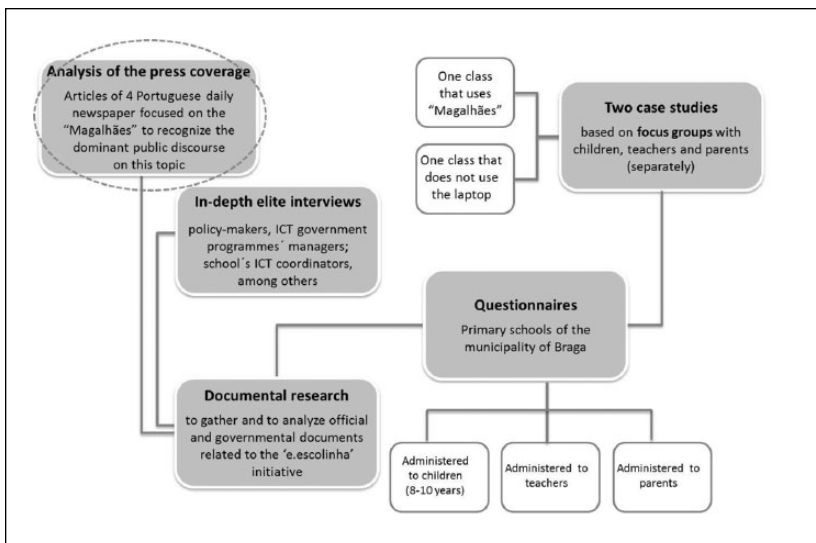


Figure 1. Methodology of the research project “Navigating with Magalhães”.

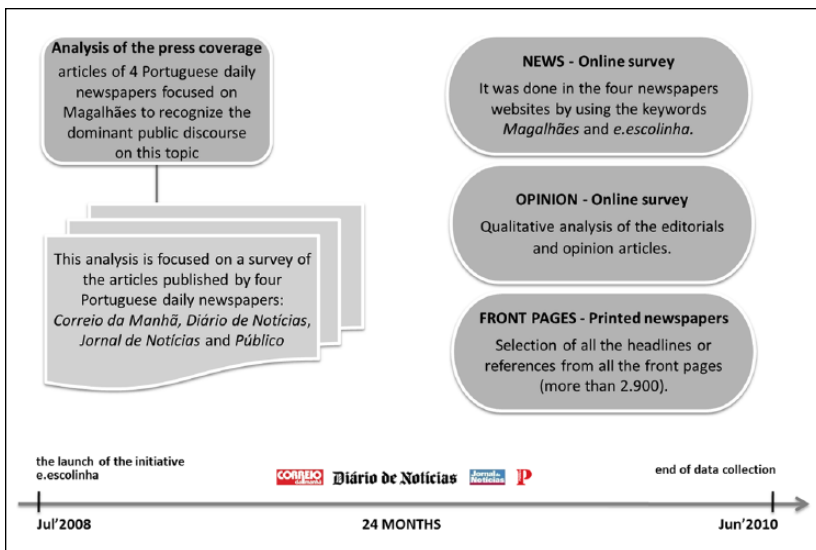


Figure 2. An outline of the research methods used in this paper.

qualitative research software “Nvivo”. It is not the purpose of this paper to provide an in-depth analysis of these documents; for now this provides an exploratory and floating reading (Bardin, 2009) of some documents in order to understand what the governmental perspectives are on this program.

The ideas transmitted in two promotional videos (“The Intel-Powered Classmate PC in Portugal”, 2009 & “Magellan, an Intel-Powered Classmate PC in Portugal”, 2009) with government members, Intel, and the manufacturer as the main actors illustrate very well the message that the government intends to pass on to society.

This is a very positive and optimistic message. The general idea is to ensure that all students from the first cycle of basic education have access to a personal computer with educational contents. More specifically, as the government listed on the website of the Technological Plan for Education, the “e.escolinha” initiative intends to:

- Generalize the use of computers and the Internet in early learning.
- Ensure access to a first computer to thousands of families.

The initial aim was to distribute 500,000 computers (which roughly corresponds to the number of children between 6 and 10 years old) and by 2009 approximately 400,000 computers have been distributed (Tribunal de Contas, 2010, p. 46).

According to the Technological Plan for Education (n.d.), “with the Technological Plan for Education, Portuguese schools are transforming themselves into spaces of interaction and sharing without barriers, preparing new generations for the challenges of the knowledge society” (<http://www.escola.gov.pt/pte>).

The former prime minister stated at an international summit that “the computer ‘Magalhães’ is designed for children but it is not just for children, it is a kind of Tintin to be used from 7 to 77 years of age” (“Sócrates promove Magalhães”, 2008. See also Figure 3). The promotional material emphasizes the introduction of ICT in primary schools considering that this is “a global and pioneering initiative expanding the concept of e-inclusion for children aged between six and ten” (“Magellan, an Intel-Powered Classmate PC in Portugal”, 2009). But it also emphasizes the supposed economic impact of this initiative on Portuguese society. It was expected that the initiative would help “stimulate the Portuguese economy in the area of new technologies, an area which is crucial for the future of the country—exporting Magellan computers and giving access to information to everyone” (“Magellan, an Intel-Powered Classmate PC in Portugal”, 2009, n.p.).

Concerning the governmental perspectives regarding educational goals, the quotations presented below from leading members of the Portuguese

16 **Diário de Notícias**
Quarta-feira, 30 de Outubro de 2008

PORTUGAL

Cimeira Ibero-Americana.

Foram dez minutos a falar do "verdadeiro computador ibero-americano". O primeiro-ministro português juntou o tema deste ano, a juventude, com o da cimeira de 2009, as novas tecnologias, e fez uma promoção entusiastada do portátil produzido pela JP Sá Couto

José Sócrates mostra o "Magalhães", o "verdadeiro computador ibero-americano"

Sócrates compara 'Magalhães' a Tintim

José Sócrates

Uma ideia para ibero-americanos "dos 7 aos 77 anos"

José Sócrates chegou a empurrar o Magalhães, mostrando-o bem às duas dezenas de chefes de Estado e de Governo que acorrem descobrir sobre o "verdadeiro computador ibero-americano". Mas para não ficar impessoal. Quando se sentaram para a reunião da sessão desta cimeira ibero-americana já tinham em mãos o portátil da JP Sá Couto na mesa. E ali já não se tratava apenas de um produto, mas de um produto português. A novidade divulgada por Sócrates era mesmo a venda de milhões de latino-americanos que de uma forma ou outra estão a seguir o que se debate na capital de El Salvador. E foi com entusiasmo que reconheceram que o nome é uma homenagem à Flórida de Magalhães, o navegador português que se serviu de Espinha descobriu a passagem marítima do Atlântico para o Pacífico.

Ligado ao tema desta cimeira, a juventude, com a da próxima cimeira, que será em Portugal e dedicada

às novas tecnologias, Sócrates explicou que se trata de um computador feito a pensar nas crianças, simples e resistente, e até referenciou que "o Presidente Chávez o afirmou um dia ao dizer não se partiu". Uma alusão ao Presidente venezuelano, que já em 2005 mostrou um modelo de Magalhães, e que falhou à abertura desta cimeira, alegando falta de um modelo, mas que vários rumores davam como provável que chegasse ainda durante a tarde (já muito longa em Lisboa). Mas mais curiosa foi a referência a Tintim, o chefe do Governo português a garantir que de forma alguma o Magalhães é um produto apenas para crianças. "Pode ser usado até aos 77 anos", disse um Sócrates sorridente, que de certa forma quis tirar premissas à Espanha, que transformou o essencial desta XVIII Cimeira Ibero-Americana num momento de pressão a favor da sua pro-

posta (como citava potência económica mundial) na reunião do G-20 que a 15 de Novembro nos Estados Unidos discutirá a resposta à crise financeira global.

António Saca, Presidente de El Salvador, agradeceu o seu exemplar do Magalhães. Também ali, ali, o exterior discutiram, falando da necessidade de

Chávez já afirmou "Magalhães" ao chilo e este não se partiu

formar a juventude para o futuro. Também o líder boliviano, Evo Morales, se referiu ao portátil português quando falou sobre a sua experiência pessoal como empreendedor e com a necessidade de garantir que nenhuma criança latino-americana, mesmo de origem indiana como ele, ficasse des-

de ao analfabetismo ou à exclusão tecnológica.

O Rei Juan Carlos, que começou por condicionar o atendimento na universidade de Navarra, fez um elogio à unidade ibero-americana, dizendo: "Magalhães é sempre o vosso maior aliado". De seguida, o primeiro-ministro espanhol, José Luis Rodríguez Zapatero, prometeu que a presidente espanhola da União Europeia "será a segunda presidente latino-americana", uma espécie de recompensa pela aposta que Madrid conseguiu em El Salvador na questão do G-20, dando o México, que estará nessa reunião, até o país anfitrião. Sobre os debates de crise internacional falaram também o brasileiro Lula da Silva e o mexicano Felipe Calderón, assim como o primeiro-ministro espanhol, José Luis Rodríguez Zapatero, que contou o caso de salvar o capitão, porque "o capitão não resolveu o problema de nenhuma parte".

'Vista Alegre' faz sucesso em San Salvador

Namora, as palavras Vista Alegre - Portugal, pintadas a verde no vidro de Tintim. Uma loja em San Salvador, a 200 metros do local da Cimeira Ibero-Americana, vende objetos de design europeu, sobretudo de estêndios e vasos, mas também a famosa marca

portuguesa de cerâmica. Está a vender muito bem. Tem linhas atractivas, que agradam aos salvadorenses", explica Elsa de Torres, que há 14 anos trabalha nesta loja situada no cruzamento da Avenida La Producción com a Avenida Sérgio Vieira de Mello, assim

baptizada em memória do diplomata brasileiro da ONU morto no Haiti. Quando está a ser um sucesso. A porta, como é hábito no capital salvadorense, um lugar armado. Nunca foram assaltados, mas, garante Elsa de Torres, "uma medida de precaução".

A DESCOBERTA DE EL SALVADOR PELOS 'TURCOS'

A família de António Saca veio de Belem, na Palestina, no início do século XX. Até aí nada de especial, ali. El Salvador recebeu muita imigração, mas o tráfego da Fronteira nas eleições de 2004 chamou a atenção de Schmitt Handl, o antigo "Comandante Somo" da guerrilha Farabundo Martí. E a sua família veio também da Palestina. Mas de que uma coincidência, tem que ver com o erro no sucesso da comunidade árabe salvadorense, cuja primeira geração se dedicava ao comércio, depois passou a fabricar e hoje dá boa parte do abito do país.

Entre os outros salvadorenses são chamados de "turcos", porque, apesar de virem da Palestina, da Síria ou do Líbano, chegaram todos com o passaporte do Império Otomano. Foi assim em muitas outras partes da América Latina, como na Argentina de Carlos Menem, filho de sírios. E ali mesmo no Brasil. Basta notar que António Horta, o nome do impoente da ditadura de Portugal que leva o seu nome, é um descendente de turcos. Assim como outros famosos, como Paulo Maluf. Jorge Amado dedicou um dia aos turcos a essa comunidade e deu-lhe o sugestivo título de *A Descoberta de António pela Turquia*.

Journalista

Figure 3. "Sócrates compares 'Magalhães' with Tintin".

Source: Diário de Notícias, Oct. 31, 2008.

government are illustrative of what is valued in this program—technology, access to technology, and success. There is strong concern about how computers will be delivered to children, how to give them access to technology,

and how to equip them with the Internet and broadband, but there is a void beyond this intention. It is widely believed that with laptops in their possession, children will succeed in learning, as if the computer were a magical tool for their success in school and, in a broad sense, in life.

Besides the notion of success being promoted by the government, it remains clear that further discussion would be necessary, before the program and during the application of this measure, not only about economic achievement, but also about learning and how children are being prepared to face future challenges.

The following quotations illustrate what is missing in the governmental program: a vision of digital media as social and cultural processes, rather than simply technical tools, and a media literacy framework that addresses questions related to a selective and critical use as well as creative production, away from a technological determinism view.

José Sócrates, Prime Minister of Portugal at that time, talking to the TV channel RTP (afternoon news bulletin, September 23, 2008), gives an exceptional power to the laptop considering that “when a ‘Magellan’ enters a house, this house will never be the same. The ‘Magellan’ is a computer to be used from ages 7 to 77. It is a computer that does everything we need”. Following the same line of thought, Maria de Lurdes Rodrigues, a former minister of education, also focuses on the power of technology, considering the computer as “an overpowering means that can make everything change: it can make a child who has difficulties in learning how to read, learn faster and better” (“Magalhães foi ‘boa medida’”, 2009).

Therefore, for these officials, the deployment of technology in schools will bring about change and result in development. It is either the Portuguese government or the business leaders who conceptualize change as a “revolution” in the teaching and learning process. The government’s belief is that technology will transform *per se* the teacher’s pedagogical practices in the classroom and, as a consequence, it will also modify the way children learn, considering they will take a more active role in the process of learning and will be more active and autonomous in building knowledge. Once again, they place great hope in the power of technology to generate change in the educational process. As Giddens (2006) pointed out,

identifying significant change involves showing how far there are alterations in the *underlying structure* of an object or situation over a period of time. In the case of human societies, to decide how far and in what ways a system is in a process of change we have to show to what degree there is any modification of *basic institutions* during a specific period. All accounts of change also involve showing what remains stable, as a baseline against which to measure alterations (p. 45).

Contrary to what the voices echoed in the press seem to suggest, change could not be explained by a single factor. Therefore, computers could have a great impact in the educational system, but its change is not limited to the area of technology. Factors such as the political, economic, social, and cultural systems are of great relevance to the changes seen in schools.

Given these perspectives and the measures and resolutions that accompany them a set of questions is raised: Does the delivery of computers to schools automatically lead to knowledge and learning? Can we consider that technology motivates learners by itself? Can technology itself make all the difference? How can we rethink the schools' role in the age of digital culture? And what about the skills children need to acquire in order to deal effectively with new media?

These are some questions that we did not find answers to in the documents produced under the program "e.escolinha". Does it mean that those responsible for this measure did not question it? We cannot forget that there are always certain circumstances that determine action. In this particular case, we now know it was not a mature decision as it should have been, at least considering the amount of money of the government budget that was spent on it. And, more importantly, it seems, based on these documents, they assumed a set of ideas about school, education, the future of children, with lower critical sense.

In order to comprehend and fully assess the gap between enunciation and pragmatic interests, the next step is to conduct in-depth elite interviews (policymakers, ICT government programs' managers, and school ICT coordinators, among others) so as to understand the main assumptions that have informed those documents.

What Do the Media Say About "Magalhães"?

The four newspapers published a total of 963 pieces of news online during the period of time reviewed. The graph below (Figure 4) shows the average number of pieces of news published by the four newspapers per month. Looking at 2010 we noticed that 315 pieces of news were published in only 6 months, which reveals significant focus on this issue and also proves that this has frequently been on the Portuguese media agenda (on average, two news items were published per day).

It is possible to detect some peaks of news that are common to the four newspapers. But what motivated these peaks?

As illustrated in figures 5 and 6, one peak occurs in the period when the initiative "e.escolinha" and the computer "Magalhães" were launched. Other peaks are related to the initiative's economic impact; the promotion of the laptop at the Iberoamerican Summit; the Portuguese grammar errors in the

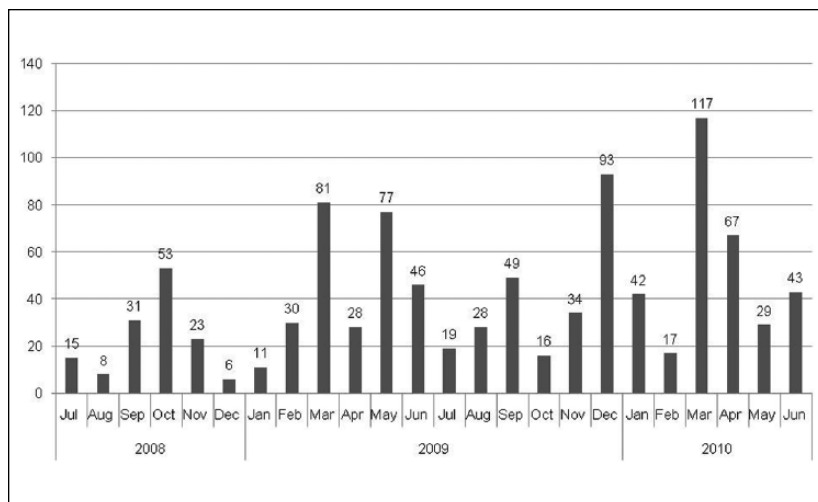


Figure 4. Average number of pieces of news published by the four newspapers per month.

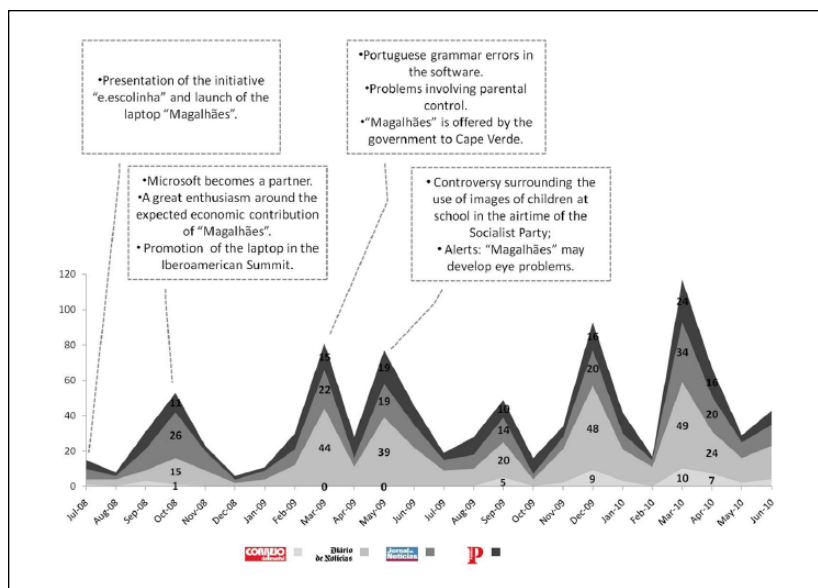


Figure 5. Peaks of the news over the 2 years.

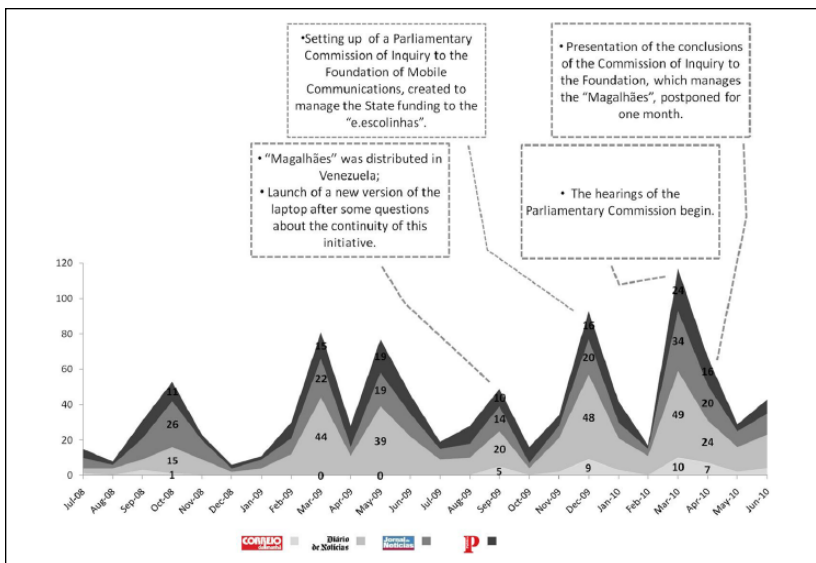


Figure 6. Peaks of the news over the 2 years.

software; problems involving parental control; the offer of “Magalhães” by the government to Cape Verde; controversy surrounding the use of images of children at school during the Socialist Party airtime; and alerts related to “Magalhães” and eyesight problems.

The year 2010 was marked mainly by a Parliamentary Inquiry Commission to the Foundation of Mobile Communications, created to manage the state funding to “e.escolinhas”, after some complaints about the tender for the production of the laptop in Portugal. This process was concluded in September 2010.

There are no significant differences among the newspapers although they have different editorial policies (*Diário de Notícias* and *Público* are seen as reference newspapers and *Correio da Manhã* and *Jornal de Notícias* as popular newspapers). The news peaks show that they pay attention to the program basically at the same time and are attracted to the same themes. The project has been subjected to considerable criticism by the press, covering mainly the problems and difficulties related to the launch of the program and its execution. Therefore, the news is mostly motivated by negative reasons, conveying to society a negative and pessimistic vision about the governmental program (see Figures 7, 8, 9, and 10). There are few cases of positive news that show some advantages of this initiative, present success stories surrounding it, or



Figure 7. “EU believes that the direct award of Magellan is illegal”.

Source: Público, Dec. 16, 2009.

even point out the gaps and ideas to bridge them. This is largely motivated, on the one hand, by the criteria of newsworthiness followed by the Portuguese media and on the other hand by the controversial political climate lived in the country, with a strong public refutation of the executive’s decisions. In the case of the “e.escolinha”, the head of the government was intentionally the main

Crise obriga empresas a reduzir d divas ao Banco Alimentar

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2 de Novembro de 2008
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PLANO TECNOL GICO P GINAS 4 E 5

'Magalh es' tem 400 mil alunos em lista de espera

Atraso ligado a falha no formul rio por maioria dos candidatos n o possuir BI

Governo calcula distribuir meio milh o de computadores ainda este ano

  Professora realiza ganhos na aprendizagem em aluno portador de Trissomia 21



Professora dedica-se a lecto de aprendizagem e desenvolvimento de alunos com necessidades especiais. "As n cias ficam mais claras", dizem as m eas

DESPORTO

  **Champions Liedson** marca e Sporting vence **P.36**

  **Taca UEFA Benfica quer quebrar engui o e Braga** ainda n o perdeu **P.37 A.42**

  **Taca de Portugal F.C. Porto volta a Alvalade**

JULGAMENTO P GINA 29

Ferreira Torres expulso da sala por m  educa  o

ACIDENTE P GINA 30

Ingl ses mant m camionista portugu s detido mais 36 horas

VOZELA P G. 20

Miseric rdia baixa rendas para ajudar fam lias carenciadas

AVISO P G. 21

Agricultores na rua pedem mais apoios

BRAGA P G. 23

PCP exige respostas para pr dios em risco

MIRANDELA P GINA 26

Presidente da Metro do Tua s  reabrir  linha com garantias escritas

Jos  Silveira quer saber se o Governo tem vontade pol tica de reabilitar tes ado

Figure 8. "400 thousand students on 'Magellan' waiting list".

Source: Jornal de Not cias, Oct. 23, 2008.

4 TRAVESSIA 31 de dezembro 2009

ACTUALIDADE I

CASO MAGALHÃES



GOVERNO ■ EM 2009 FORAM TRANSFERIDOS 200,5 MILHÕES DE EUROS PARA A FCM

Portáteis custam 217 milhões a contribuintes

■ Despesa do Estado com computadores distribuídos no Programa e.escola, como o 'Magalhães', representa 25 por cento do custo total



■ ANTÓNIO SÉRGIO AZEVEDA

O Programa e.escola, em que está integrada a distribuição do computador 'Magalhães', já custou ao Estado, segundo a Fundação para as Comunicações Móveis (FCM), cerca de 217 milhões de euros. Com esta despesa pública a comparticipação dos contribuintes com a distribuição de computadores a alunos e professores é 51 por cento superior aos montantes apresentados inicialmente por Mário Lino, o ministro que avançou com esta iniciativa no anterior Governo de José Sócrates, e António Mendonça, seu sucessor na pasta das Obras Públicas (ver caixa). 50 em 2009, este Ministério transferiu para a FCM cerca de 200 milhões de euros.

AFCM, em resposta às questões do Correio da Manhã, deixa claro que "o Programa e.escola, desde o início até 4 de Setembro, representa um investimento global de cerca de 850 milhões de euros repartidos entre as operações de comunicações (49%), os beneficiários (20%) e o Estado (31%)". E "para fazer face a este investimento o Estado transferiu para a FCM, até 2009, um total de cerca de 217 milhões".

Desta verba total, 180,5 milhões de euros são provenientes do orçamento da Ação Social Escolar (ASE) e 36,5 milhões são oriundos dos lucros do Instituto de Comunicações de Portugal - An-



José Sócrates elegu a distribuição de 'Magalhães' como uma das prioridades do seu anterior Executivo

Ação Social Escolar pagou aquisições dos alunos mais pobres

toriedade Nacional de Comunicações (ICN - Anacom), em 2007 e 2008.

Até 31 de Dezembro de 2008, o Ministério das Obras Públicas transferiu para a FCM apenas 10,5 milhões de euros, como precisava o relatório e contas da FCM relativo a 2008.

Por isso, a grande fatia das verbas públicas afecta a este progra-

ma foi transferida para a FCM em 2009: dos cerca de 200 milhões de euros transferidos, 180,5 são verbas da ASE. O PSD considera, através do deputado Jorge Costa, que "a utilização de verbas da ASE é um desperdício de verbas".

Certo é que o Decreto-lei 55, publicado em Diário da República em Março deste ano, altera o regime da

ASE e prevê o acesso a computadores portáteis e à internet de banda larga. Por isso, entret, Paulo Campos, secretário de Estado das Obras Públicas, frisa que "a ASE paga o diferencial entre aquilo que o preço está tabelado para as pessoas e aquilo que são as ofertas especiais da ASE".

E exemplifica: "No caso do 'Magalhães', no geral custava 50 euros. As pessoas beneficiadas pela ASE pagavam 20 euros ou zero, pagando a ASE o diferencial". ■

SAIBA MAIS

■ **DATA DA CONSTITUIÇÃO**
A Fundação para as Comunicações Móveis (FCM) foi constituída a 11 de Setembro de 2008 por SonaeCom, TUM e Vodafone. Apesar de ser uma fundação de direito privado, a sua gestão é da responsabilidade do Estado e o seu objectivo é o acesso generalizado às comunicações.

■ **1,2**
milhões de computadores é o número total de portáteis distribuídos até agora no âmbito do Programa e.escola. Deste total, 500 mil foram atribuídos a alunos de famílias com menores rendimentos.

■ **24,9**
milhões de euros é o valor do património inicial da FCM referente à participação equitativa dos três fundadores.

■ **ACORDOS**
O relatório e contas da FCM de 2008 diz que o Estado assume "a obrigação de dotar a FCM dos fundos necessários a fazer face às obrigações assumidas junto dos operadores no âmbito do Programa e.escola".

Figure 9. "Laptops cost 217 million to taxpayers".

Source: Correio da Manhã, Dec. 15, 2009.

face of this program, making a rhetorical speech, out of step with education system and schools' reality. This action gave rise to criticism addressed to the prime minister by various sectors of society, which were echoed and represented by the media.

12

Diário de Notícias Segunda-feira, 7 de Dezembro de 2009

política

Parlamento. O PSD deverá hoje anunciar um inquérito à Fundação das Comunicações Móveis, responsável pelo financiamento do programa que distribuiu mais de um milhão de computadores, 400 mil dos quais portáteis 'Magalhães'. PS e Governo já ensaiam respostas: a fundação chegou a ser pensada num Governo do PSD E, sendo privada, está sujeita a escrutínio público

GOVERNO E PS CONTRA-ATACAM COM INQUÉRITO AO 'MAGALHÃES'

de JOÃO PEDRO HENRIQUES

Já está definida a estratégia do PS e do Governo para responder à comissão parlamentar de inquérito ao Magalhães que o PSD pretende hoje lançar.

Parte da resposta passa por dizer que a Fundação para as Comunicações Móveis (FCM), que financiou o programa e escolheu a via via dos qual foram distribuídos quase 400 mil portáteis Magalhães, surge apenas como decorrente de algo iniciado pelo Governo PSD-CDU liderado por José Manuel Durão Barroso (2000-2004).

O que está em causa, originalmente, é o concurso de 2000 para as licenças de telecomunicações de 2ª geração (atribuídas à Vodafone, TTM e Optus). No âmbito dessas licenças, os operadores ficaram obrigados a dar contrapartidas para a promoção da sociedade da informação.

Num despacho de Janeiro de 2003 do então ministro da Economia (Carlos Taveira, hoje presidente da CITEVE), sendo primeiro-ministro Durão Barroso, fica claro que o Governo estava a "organizar" a criação de uma fundação (designada de Fundação para a Sociedade da Informação) onde seriam depositados 24,9 milhões de euros das operadoras de telecomunicações, no âmbito das contrapartidas do concurso de 2000 e tendo em vista a "promoção da sociedade da informação".

Man, entretanto, estavam por definir os programas concretos de promoção da sociedade da informação. As operadoras tinham obrigações, mas não existia objecto.

Já com José Soares primeiro-ministro, em 2007, foi criado um Fundo para a Sociedade da Informação, onde foram depositados os

24,9 milhões de euros. Serviu



O programa e-escola já distribuiu quase 400 mil computadores 'Magalhães'

apenas de meio-ano. Em 2008 foi criada a FCM e o Governo sublinha que, embora sendo de direito privado (porque tem os três operadores de telecomunicações como acionistas), a gestão é estatal.

Logo, está obrigada ao escrutínio público, por exemplo, do Tribunal de Contas (está aliada a decorear uma auditoria e é iniciada a licenciada pelo Governo, e que incluem o programa e-escola, bem como outros).

Existe em si a seguir da Constituição Pública.

O Governo e o PS têm também já preparado o argumento para

responder à acusação segundo a qual o computador Magalhães, vendido português (da empresa IP SA Ceuta) do Classroom da Intel, foi escolhido sem critérios públicos. A resposta vem no relatório com as contas de 2008 da FCM. Relativamente à aquisição de computadores ou outro material integrado nas ofertas dos operadores, no programa e-escola (que inclui a iniciativa e-escola), a responsabilidade pela sua aquisição é dos operadores que disponibilizam tal oferta, não havendo qualquer intervenção do Estado ou da FCM neste processo para além da fixação das especificações técnicas e de custo máximo. ■

PSD adoptou "via radical, extremista e irresponsável"

Social-democratas tentam "enlutar" a vida política portuguesa", acusam críticos Francisco Assis

O PSD ainda não confirmou oficialmente que lançou uma comissão de inquérito ao 'Magalhães' mas o PS já começou a reagir. Orsini, no Porto, o líder parlamentar acusou o PSD de "optar por uma via radical, extremista e irresponsável". "A ser verdade, isso significa que o PSD está de facto a optar por uma via radical, extremista e irresponsável, de todo em todo imprópria de um grande partido com vocação de alternativa de poder", disse Francisco Assis.

O PS - aduziu - está interessado em que "haja a máxima transparência em todos os processos decisórios". Mas "uma coisa é ter esta atitude e outra é verificar que o PSD está de facto a fazer uma campanha alardeada na imprensa e na televisão, atacando não apenas o PS mas também as instituições e as pessoas", criticando "permanentemente a existência de uma vida política portuguesa".

Segundo acrescentou, "o 'Magalhães' tem sido pelo desvirtuamento da sociedade da informação em

O PSD está de facto a optar por uma via radical, extremista e irresponsável, de todo em todo imprópria de um grande partido com vocação de alternativa de poder. [Tenta] permanentemente enlutar a vida política portuguesa. Francisco Assis, líder parlamentar do PS

Por que razão anda tanta gente, a começar pelo primeiro-ministro e a acabar no seu eco interno, a criar ao PSD qual deve ser a sua política, qual deve ser a sua 'responsabilidade' qual deve ser o seu 'sentido de estado'? Pacheco Pereira, deputado do PSD

Pacheco Pereira, deputado do PSD

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Características do e-escola

1,2 milhões de portáteis distribuídos

O programa e-escola, que tem vários sub-programas, já distribuiu, segundo números oficiais, 1 196 220 computadores. Os "grupos" da distribuição focou por conta do e-escola para estudantes do 2º ciclo do ensino básico, com cerca de 400 mil computadores, e o e-escola (1º ciclo do ensino básico, ensino primário), com cerca de 398 mil Magalhães. 277 mil computadores foram distribuídos no e-escola (iniciativa para estudantes das Novas Oportunidades).

'Magalhães' tem primos no mundo fora

No início (2006) o Governo ensaiou apresentar o Magalhães como o primeiro computador made in Portugal. Mas rapidamente abandonou essa linha de argumentação, quando se tornou claro que o portátil era apenas um produto nacional da Classroom PC da Intel. Uma versão nacional feita pela empresa norteia IP SA Ceuta Na Intel e Classroom também tem nome próprio: "Ceuta". Assim como no Brasil ("Mobi Kid") ou na Itália ("Jamp PC").

Figure 10. "Government and PS counter-attack with an inquiry into 'Magellan'".
Source: Diário de Notícias, Dec. 7, 2009.

The media provide citizens with reference guides that help them interpret the world, affecting their experiences in everyday life. That is why it is important to be aware of the media's representations of reality. In this specific case, news writers offered Portuguese society a reading frame of this

governmental program and as it is shaped, to some extent, by a pessimistic view, this has impacted its acceptance and understanding.

Under this press analysis we face a certain logic of news production that keeps us from considering the media discourse as a faithful mirror of reality or as an objective representation of current affairs. The media discourse, in this case the press discourse, is interpretative, making it necessary to analyze it and to reflect on how events are covered and mediated. Citizens form their opinions and build common knowledge in part from the angles of observation and the points of view reflected in and by the media. In this particular case, what do the media want us to think? Who gets invited to talk? When the newspapers choose pictures of the prime minister dealing with children and the computer to illustrate the news, what kind of information do they want to convey? As noted by Michel de Certeau (1980), the way the world is told and described has a decisive influence on our ways of being and the manner in which we act daily. In this sense, it is as important to know what the press brought to the public space to be discussed as what newspapers left out of their pages.

The newspapers' printed editions analysis gives us a scenario similar to the online news analysis. Looking at 2,900 front pages, 66 headlines or references related to "Magalhães" were found in these front pages, representing 2.3% of the total. In this analysis we highlight the thematic categories of the news. The categories "economy" and "education" were the main ones covered on the front pages, with 39% and 38% respectively, followed by "politics" (13%), "justice" (5%), and "other" themes (5%). This analysis shows that the questions related to the economic impact of the program assume a great importance alongside the educational and pedagogical issues that could be expected to be portrayed more extensively, considering it intends to be an educational project.

Finally, 52 opinion articles and 12 editorials were collected. In the analysis of this material we noted a polarized debate; some opinion makers presented arguments in favor of the project and others presented arguments against the initiative. The two quotations below are examples of opinions for and against:

- Supporting: "Turn off the Magalhães! And while you're at it, break all pencils (without parental control, a pencil can draw things I can't even begin to imagine . . .)" (Fernandes, 2008);
- Against: "The Prime Minister looks at the Magalhães and sees information highways and communication bridges and, road metaphors aside, he sees a future which is the same as the present that other people are living abroad. Inside [Portugal], unfortunately, Portuguese

people look at the Magellan and enact the fable of the ox and the palace” (Gonçalves, 2009).

In this debate they use irony and ridicule both to attack and defend the computer. The former prime minister José Sócrates was also identified with the program and with the “Magalhães” computer; some attacks on the initiative are first of all attacks on the head of the government and his policies. The following quotations from the opinion articles illustrate this analysis:

- “At school, students participated, involuntarily, in a propaganda campaign for the government, having been recorded on video, against their will, using that newest of glories of the socratic technology—Magalhães” (Marques, 2009);
- “[José Sócrates] took off the prime minister mantle and is now the head of sales for Intel and JP Sá Couto” (Novo, 2008);
- “Sócrates’ Magellan” (Pinto, 2009).

Another aspect that emerges from a critical reading of the articles is the predominance of coverage of political and partisan issues at the expense of a pedagogical angle. As mentioned before, the debate is extremely dichotomous; it is difficult to find a balanced opinion that discusses the pros and cons of the initiative. This is also a consequence of the politicization of the debate that highlights the attacks and the counterattacks between parties regarding the program. The feeble educational discussion is held by opinion makers linked to literature. A well-known Portuguese writer notes, “if kids are not taught how to think, to conduct a search, to use a text as it should be, instead of just copying what they see on the screen - the Magalhães is worth nothing” (Vieira, 2009). Another contribution that can get people to think, instead of simply being for or against, comes from a biotechnology researcher who states:

The technological shock is arriving at Portuguese schools. Portuguese students will be entitled to Magalhães, a laptop produced by Intel and subsidized by the Portuguese government. The executive believes that if we give good technology (made in the US, produced in the Far East and packed in Portugal) to bad students, bad schools and bad teachers we will obtain Physics and Mathematics geniuses.

Someone is confusing causes and consequences. Technology does not produce physicists and mathematicians. Physicists and mathematicians are the ones who produce technology. Portuguese students today have access to cheap computers because some of the best American students have studied Physics and Mathematics for decades. Technology derives from good students. Good students are not the ones that derive from technology (Miranda, 2008).

The majority of articles paid little attention to aspects that could limit the project to technological and mercantilist perspectives. Only a small number of commentators noted the need for media literacy.

Final Remarks

The findings of this analysis show that the “Magalhães” laptop was presented to society by the government as a tool that will revolutionize the school, the learning process, and the educational practices, as if giving children access to a computer necessarily means successful learning and modernization of schools. Despite the government’s optimism regarding this program, the successive controversies that have arisen surrounding the computer show a lack of preparation for this initiative. In economic and social troubled times faced by the government and in the midst of the public outcry over its controversial measures, the executive uses this program and the distribution of computers to schools as an engine of propaganda and an instrument of political opposition, seeking to please people who are dissatisfied and to regain its political image. Somehow it seems contrary to the idea promoted by the prime minister that “it is more than a computer; it is an educational project” (“Sócrates’speech”, 2008; moreover, an idea also advocated by the OLPC project) because the discourse is all around deploying the computer to children, forgetting the schools’ conditions, the teachers, the contents, the training, the uses, and the children’s empowerment. As Selwyn (2011, p. 17) points out “educational technologies are not simply neutral tools that are used in benign ways within educational contexts. Like all other technologies, educational technology is intrinsically linked with the social, cultural and political aspects of society” and these aspects that surround the use of the technologies have been neglected by the governmental program.

Indeed, despite being presented as an educational initiative, this objective has largely been supplanted by economic aspects (interests). “Magalhães” is harnessed as a great business opportunity. The idea of the child computer user is mostly centred on political and commercial interests. Actually, this view is not new: in a 2003 paper, Selwyn presents a rich discussion around the notion of the “child computer user” stating that this notion “is to a large degree, merely a means of persuasion and promotion on the part of the key commercial and political guiding interests of the information age” (Selwyn, 2003, p. 374).

Both the political and media discourses focus on the idea of “technology”. The relationship that children can establish with digital media, how these are present in their lives, the competences required to deal critically and

creatively with these means—in short, the media literacy framework—are aspects overlooked by policymakers as well as by the press.

The “Magalhães” computer is at the centre of political disputes and this has led to extensive coverage by the media, as confirmed by the significant number of reports published in the online editions of only four daily newspapers. Although these are the four main papers of general information in Portugal, and the most read by the Portuguese in this press category, the study could have benefited if it had also integrated the analysis of other media, particularly the television news bulletins of the principal channels. It is, nevertheless, important to mention that within the research project that includes this paper, a study examining the two Portuguese weekly newspapers (“Expresso” and “Sol”) in the same period of time was undertaken as part of a Master’s thesis (cf. Melro, 2011). The main results of this study, which allowed complementing the analysis of the press presented in this article, pointed out the same conclusions drawn from the study of the daily newspapers.

The examination of this case shows the logic of news production that prevents us from facing the discourse of the media as a faithful mirror of reality, or as an objective representation of factual reality. The press discourses are far from reflect the multifaceted dimensions of the governmental program “e.escolinha”. This is a dimension related to media performance, by analyzing what they show and say and by what they omit and don’t say. As it is widely recognized, the media play an important role in the configuration of social reality. As social agents, they influence and contribute to the formation of public opinion (Noelle-Neumann, 1984), operating as strategic actors that shape meanings, define social priorities, and set the social agenda. As Martins (2009) observed, “rather than the effects that media messages have on individuals, the investigation of McCombs and Shaw (1972) demonstrates that the media can stabilize the dominant views, set priorities, mark the importance of events and limit options” (p. 212). By the way the press mediated and represented this case, the news coverage has had, clearly, a decisive influence on how Portuguese citizens think and understand the technological policy for education. As the media field is a major structuring system of society, it is crucial to question the media’s representations of reality and to scrutinize their actions and products. Here again media literacy plays a central role on developing audiences’ critical reading and understanding with regard to media messages.

As mentioned earlier, the analysis in this study was undertaken with the lenses of the critical media literacy framework. We are however aware that further analysis would be possible if it was conducted under another theoretical framework.

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Project reference: FCT: PTDC/CCI-COM/101381/2008 | COMPETE: FCOMP-01-0124-FEDER-009056.

Note

1. Url: http://www.gepe.min-edu.pt/np4/?newsId=606&fileName=EE2009_2010.pdf

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